

=====

Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2008; month=1; day=23; hr=14; min=41; sec=25; ms=263;]

=====

Application No: 10753646 Version No: 2.0

Input Set:**Output Set:**

Started: 2008-01-10 13:56:12.019
Finished: 2008-01-10 13:56:13.756
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 737 ms
Total Warnings: 42
Total Errors: 2
No. of SeqIDs Defined: 51
Actual SeqID Count: 51

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
E 257	Invalid sequence data feature in <221> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
E 257	Invalid sequence data feature in <221> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

Started: 2008-01-10 13:56:12.019
Finished: 2008-01-10 13:56:13.756
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 737 ms
Total Warnings: 42
Total Errors: 2
No. of SeqIDs Defined: 51
Actual SeqID Count: 51

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (21)
W 213	Artificial or Unknown found in <213> in SEQ ID (22) This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> DAVIDSON, DONALD J.
GUBBINS, EARL J.
WANG, JIEYI

<120> NOVEL ANTIANGIOGENIC PEPTIDES, POLYNUCLEOTIDES
ENCODING SAME AND METHODS FOR INHIBITING
ANGIOGENESIS

<130> 5940.US.C3

<140> 10753646

<141> 2004-01-08

<150> 08/851,350

<151> 1997-05-05

<150> 08/643,219

<151> 1996-05-03

<150> 08/832,087

<151> 1997-04-03

<160> 51

<170> PatentIn version 3.3

<210> 1

<211> 791

<212> PRT

<213> Homo sapiens

<400> 1

Glu	Pro	Leu	Asp	Asp	Tyr	Val	Asn	Thr	Gln	Gly	Ala	Ser	Leu	Phe	Ser
1				5					10					15	

Val	Thr	Lys	Lys	Gln	Leu	Gly	Ala	Gly	Ser	Ile	Glu	Glu	Cys	Ala	Ala
			20					25					30		

Lys	Cys	Glu	Glu	Asp	Glu	Glu	Phe	Thr	Cys	Arg	Ala	Phe	Gln	Tyr	His
		35						40					45		

Ser	Lys	Glu	Gln	Gln	Cys	Val	Ile	Met	Ala	Glu	Asn	Arg	Lys	Ser	Ser
		50				55						60			

Ile	Ile	Ile	Arg	Met	Arg	Asp	Val	Val	Leu	Phe	Glu	Lys	Lys	Val	Tyr
65					70					75					80

Leu	Ser	Glu	Cys	Lys	Thr	Gly	Asn	Gly	Lys	Asn	Tyr	Arg	Gly	Thr	Met
				85					90						95

Ser Lys Thr Lys Asn Gly Ile Thr Cys Gln Lys Trp Ser Ser Thr Ser
100 105 110

Pro His Arg Pro Arg Phe Ser Pro Ala Thr His Pro Ser Glu Gly Leu
115 120 125

Glu Glu Asn Tyr Cys Arg Asn Pro Asp Asn Asp Pro Gln Gly Pro Trp
130 135 140

Cys Tyr Thr Thr Asp Pro Glu Lys Arg Tyr Asp Tyr Cys Asp Ile Leu
145 150 155 160

Glu Cys Glu Glu Glu Cys Met His Cys Ser Gly Glu Asn Tyr Asp Gly
165 170 175

Lys Ile Ser Lys Thr Met Ser Gly Leu Glu Cys Gln Ala Trp Asp Ser
180 185 190

Gln Ser Pro His Ala His Gly Tyr Ile Pro Ser Lys Phe Pro Asn Lys
195 200 205

Asn Leu Lys Lys Asn Tyr Cys Arg Asn Pro Asp Arg Glu Leu Arg Pro
210 215 220

Trp Cys Phe Thr Thr Asp Pro Asn Lys Arg Trp Glu Leu Cys Asp Ile
225 230 235 240

Pro Arg Cys Thr Thr Pro Pro Pro Ser Ser Gly Pro Thr Tyr Gln Cys
245 250 255

Leu Lys Gly Thr Gly Glu Asn Tyr Arg Gly Asn Val Ala Val Thr Val
260 265 270

Ser Gly His Thr Cys Gln His Trp Ser Ala Gln Thr Pro His Thr His
275 280 285

Asn Arg Thr Pro Glu Asn Phe Pro Cys Lys Asn Leu Asp Glu Asn Tyr
290 295 300

Cys Arg Asn Pro Asp Gly Lys Arg Ala Pro Trp Cys His Thr Thr Asn
305 310 315 320

Ser Gln Val Arg Trp Glu Tyr Cys Lys Ile Pro Ser Cys Asp Ser Ser
 325 330 335

Pro Val Ser Thr Glu Gln Leu Ala Pro Thr Ala Pro Pro Glu Leu Thr
 340 345 350

Pro Val Val Gln Asp Cys Tyr His Gly Asp Gly Gln Ser Tyr Arg Gly
 355 360 365

Thr Ser Ser Thr Thr Thr Thr Gly Lys Lys Cys Gln Ser Trp Ser Ser
 370 375 380

Met Thr Pro His Arg His Gln Lys Thr Pro Glu Asn Tyr Pro Asn Ala
 385 390 395 400

Gly Leu Thr Met Asn Tyr Cys Arg Asn Pro Asp Ala Asp Lys Gly Pro
 405 410 415

Trp Cys Phe Thr Thr Asp Pro Ser Val Arg Trp Glu Tyr Cys Asn Leu
 420 425 430

Lys Lys Cys Ser Gly Thr Glu Ala Ser Val Val Ala Pro Pro Pro Val
 435 440 445

Val Leu Leu Pro Asp Val Glu Thr Pro Ser Glu Glu Asp Cys Met Phe
 450 455 460

Gly Asn Gly Lys Gly Tyr Arg Gly Lys Arg Ala Thr Thr Val Thr Gly
 465 470 475 480

Thr Pro Cys Gln Asp Trp Ala Ala Gln Glu Pro His Arg His Ser Ile
 485 490 495

Phe Thr Pro Glu Thr Asn Pro Arg Ala Gly Leu Glu Lys Asn Tyr Cys
 500 505 510

Arg Asn Pro Asp Gly Asp Val Gly Gly Pro Trp Cys Tyr Thr Thr Asn
 515 520 525

Pro Arg Lys Leu Tyr Asp Tyr Cys Asp Val Pro Gln Cys Ala Ala Pro
 530 535 540

Ser Phe Asp Cys Gly Lys Pro Gln Val Glu Pro Lys Lys Cys Pro Gly
545 550 555 560

Arg Val Val Gly Gly Cys Val Ala His Pro His Ser Trp Pro Trp Gln
565 570 575

Val Ser Leu Arg Thr Arg Phe Gly Met His Phe Cys Gly Gly Thr Leu
580 585 590

Ile Ser Pro Glu Trp Val Leu Thr Ala Ala His Cys Leu Glu Lys Ser
595 600 605

Pro Arg Pro Ser Ser Tyr Lys Val Ile Leu Gly Ala His Gln Glu Val
610 615 620

Asn Leu Glu Pro His Val Gln Glu Ile Glu Val Ser Arg Leu Phe Leu
625 630 635 640

Glu Pro Thr Arg Lys Asp Ile Ala Leu Leu Lys Leu Ser Ser Pro Ala
645 650 655

Val Ile Thr Asp Lys Val Ile Pro Ala Cys Leu Pro Ser Pro Asn Tyr
660 665 670

Val Val Ala Asp Arg Thr Glu Cys Phe Ile Thr Gly Trp Gly Glu Thr
675 680 685

Gln Gly Thr Phe Gly Ala Gly Leu Leu Lys Glu Ala Gln Leu Pro Val
690 695 700

Ile Glu Asn Lys Val Cys Asn Arg Tyr Glu Phe Leu Asn Gly Arg Val
705 710 715 720

Gln Ser Thr Glu Leu Cys Ala Gly His Leu Ala Gly Gly Thr Asp Ser
725 730 735

Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Phe Glu Lys Asp Lys
740 745 750

Tyr Ile Leu Gln Gly Val Thr Ser Trp Gly Leu Gly Cys Ala Arg Pro
755 760 765

Asn Lys Pro Gly Val Tyr Val Arg Val Ser Arg Phe Val Thr Trp Ile

770

775

780

Glu Gly Val Met Arg Asn Asn
785 790

<210> 2

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 2

attaatggat ccttggacaa gaggctgctt ccagatgtag agact 45

<210> 3

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 3

attaatggat ccttggacaa gaggggtccag gactgctacc atggt 45

<210> 4

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 4

attaatctcg aggcattgctt aggccgcaca ctgatggaca 40

<210> 5

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 5

attaatctcg aggcattgctt aaaatgaagg ggccgcacac t 41

<210> 6

<211> 7

<212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> 3-I-Tyr

 <400> 6
 Pro Arg Lys Leu Xaa Asp Tyr
 1 5

 <210> 7
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 7
 gaaacttcca aaagtcgcca ta 22

 <210> 8
 <211> 92
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 8
 attaatgaat tcctcgagcg gtccgggatc cctcggcagc ggaaccaacg gtagtgcaga 60

 taactggctg agcgaagaca gattgcaaag ta 92

 <210> 9
 <211> 111
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 9
 atgttctctc caatthttgtc cttggaaatt atttttagctt tggctacttt gcaatctgtc 60

 ttcgctcagc cagttatctg cactaccgtt gggtccgctg ccgagggatc c 111

<210> 10
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 10
 gtccaggact gctaccat 18

 <210> 11
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 11
 ctgcttccag atgtagaga 19

 <210> 12
 <211> 2497
 <212> DNA
 <213> Homo sapiens

 <400> 12
 catcctggga ttgggacca ctttctgggc actgctggcc agtcccaaaa tggaacataa 60

 ggaagtgggtt cttctacttc ttttatttct gaaatcaggt caaggagagc ctctggatga 120

 ctatgtgaat acccaggggg cttcactgtt cagtgtcact aagaagcagc tgggagcagg 180

 aagtatagaa gaatgtgcag caaaatgtga ggaggacgaa gaattcacct gcagggcatt 240

 ccaatatcac agtaaagagc aacaatgtgt gataatggct gaaaacagga agtcctccat 300

 aatcattagg atgagagatg tagttttatt tgaaaagaaa gtgtatctct cagagtgcaa 360

 gactgggaat ggaaagaact acagaggggac gatgtccaaa acaaaaaatg gcatcacctg 420

 tcaaaaaatg agttccactt ctccccacag acctagatc tcacctgcta cacaccctc 480

 agaggggactg gaggagaact actgcaggaa tccagacaac gatccgcagg ggccctggtg 540

 ctatactact gatccagaaa agagatatga ctactgcgac attcttgagt gtgaagagga 600

 atgtatgcat tgcagtggag aaaactatga cggcaaaatt tccaagacca tgtctggact 660

 ggaatgccag gcctgggact ctcaagagccc acacgctcat ggatacatc cttccaaatt 720

 tccaaacaag aacctgaaga agaattactg tcgtaacccc gataggggagc tgcggccttg 780

 gtgtttcacc accgaccca acaagcgctg ggaactttgt gacatcccc gctgcacaac 840

acctccacca tcttctggtc ccacctacca gtgtctgaag ggaacaggtg aaaactatcg	900
cgggaatgtg gctgttaccg tgtccgggca cacctgtcag cactggagtg cacagacccc	960
tcacacacat aacaggacac cagaaaactt cccctgcaaa aatttggtatg aaaactactg	1020
ccgcaatcct gacggaaaaa gggcccatg gtgccataca accaacagcc aagtgcggtg	1080
ggagtactgt aagataccgt cctgtgactc ctccccagta tccacggaac aattggctcc	1140
cacagcacca cctgagctaa cccctgtggt ccaggactgc taccatggtg atggacagag	1200
ctaccgaggc acatcctcca ccaccaccac aggaaagaag tgtcagttctt ggtcatctat	1260
gacaccacac cggcaccaga agacccaga aaactacca aatgctggcc tgacaatgaa	1320
ctactgcagg aatccagatg ccgataaagg cccctggtgt tttaccacag accccagcgt	1380
caggtgggag tactgcaacc tgaaaaaatg ctcaggaaca gaagcgagtg ttgtagcacc	1440
tccgcctgtt gtctgtcttc cagatgtaga gactccttcc gaagaagact gtatgtttgg	1500
gaatgggaaa ggataccgag gcaagagggc gaccactgtt actgggacgc catgccagga	1560
ctgggctgcc caggagcccc atagacacag cattttcact ccagagacaa atccacgggc	1620
gggtctggaa aaaaattact gccgtaacct tgatggtgat gtaggtggtc cctggtgcta	1680
cacgacaaat ccaagaaaac tttacgacta ctgtgatgtc cctcagtgtg cggccccttc	1740
atgtgattgt gggaagcctc aagtggagcc gaagaaatgt cctggaaggg ttgtaggggg	1800
gtgtgtggcc caccacatt cctggccctg gcaagtcagt cttagaacaa ggtttggaat	1860
gcacttctgt ggaggcacct tgatatcccc agagtgggtg ttgactgtctg ccactgtctt	1920
ggagaagtcc ccaaggcctt catcctacaa ggtcatcctg ggtgcacacc aagaagtgaa	1980
tctcgaaccg catgttcagg aaatagaagt gtctaggctg ttcttgagc ccacacgaaa	2040
agatattgcc ttgctaaagc taagcagtc tgcctgcatc actgacaaag taatcccagc	2100
ttgtctgcca tcccaaatt atgtggctgc tgaccggacc gaatgtttcg tcaactggctg	2160
gggagaaacc caaggtactt ttggagctgg ccttctcaag gaagcccagc tcctgtgat	2220
tgagaataaa gtgtgcaatc gctatgagtt tctgaatgga agagtccaat ccaccgaact	2280
ctgtgctggg catttgccg gaggcactga cagttgccag ggtgacagtg gaggtcctct	2340
ggtttgcttc gagaaggaca aatacathtt acaaggagtc acttcttggg gtcttggtg	2400
tgcacgcccc aataagcctg gtgtctatgt tcgtgtttca aggtttgtta cttggattga	2460
gggagtgatg agaaataatt aattggacgg gagacag	2497

<210> 13
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 13
 ttattaggcc gcacactgag gga 23

 <210> 14
 <211> 128
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 14
 agcgtctcat gaagagctgg ctcaccttcg ggtgggcctt tctgcgcctt ggcgcgccaa 60

 ccttaattaa ccgggagccc gcctaatagag cgggcttttt tttgctcttc atagtgactg 120

 agacgtcg 128

 <210> 15
 <211> 175
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 15
 agcgtctcag gtggttgtca tcaccatcac catcacggtg gtggtctggt gccgcgcggc 60

 agctgaagag ctggctcacc ttcggttggg cctttctgcg ccttggcgcg ccaaccttaa 120

 ttaaccggga gccgcgctaa tgagcgggct tttttttgct cttcacgaga cgtcg 175

 <210> 16
 <211> 156
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 16
 agcgtctcag gtggttgtca tcaccatcac catcacggtg gtggttgaag agctggctca 60

 ccttcgggtg ggccctttctg cgccttggcg cgccaacctt aattaaccgg gagccgcct 120

aatgagcggg cttttttttg ctcttcacga gacgtc

156

<210> 17

<211> 172

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 17

agcgtctcag gtggtggtca tcaccatcac catcacggtg gtggtgatga cgatgacaag 60

tgaagagctg gctcaccttc ggggtgggcct ttctgcgcct tggcgcgcca accttaatta 120

accgggagcc cgcctaata gcgggccttt ttttgcctt cagagacgt cg 172

<210> 18

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<220>

<221> MOD_RES

<222> (7) .. (7)

<223> 3-I-Tyr

<400> 18

Pro Arg Lys Leu Tyr Asp Xaa

1 5

<210> 19

<211> 12

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 19

catgtgaaga gc 12

<210> 20

<211> 12

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 20

gacgcgtctt ca

12

<210> 21

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 21

agatctcgat cccgcgaa

18

<210> 22

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 22

atccggatat agttcctc

18

<210> 23

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 23

cgggcttttt ttgctcttc a

21

<210> 24

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 24

cagattttcg tcaagactt

19

<210> 25

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 25

accacctctt agccttag

18

<210> 26

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 26

catggtatat ctcttctt

19

<210> 27

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 27

tgagcaataa ctagcataac

20

<210> 28

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 28

agatctcgat cccgcgaa

18

<210> 29

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 29

ttaggtctca ggggagt

17

<210> 30
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 30
 ttcagaacct ttcttgga 19

 <210> 31
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 31
 agcggcgacg acgacgaaa g 21

 <210> 32
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 32
 cttgtcgtcg tcgtcgccgc t 21

 <210> 33
 <211>